



TENNESSEE DEPARTMENT OF TRANSPORTATION ASBESTOS INSPECTION REPORT

Interstate 75 Over State Route 63
07I00750017
Interstate 75
Campbell County



Prepared by:

Terracon
5217 Linbar Drive, Suite 309
Nashville, Tennessee 37211

June 23, 2014
Terracon Project Number: 18147070

James A. Duncan, P.E.
Environmental Department Manager

Joel Russell
Tennessee Asbestos Inspector Accreditation [A-I-48757-25461]

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1.0 INTRODUCTION

This report presents the findings of an inspection for asbestos containing materials completed on the bridge identified in Section 1.1. The inspection was completed in accordance with the State of Tennessee, Department of Transportation Environmental Division, Social and Cultural Resources Office, Hazardous Materials Section requirements

1.1 TDOT BRIDGE IDENTIFICATION

The bridge is identified in the TDOT Project System/Bridge Management System as:

TDOT PE Number: 07100-0125-94
TDOT PIN Number: 115642.00
Bridge Inventory Number: 07I00750017
State Route Number: I0075
Log Mile Number: 11.24

1.2 GENERAL DESCRIPTION

The Campbell County north bound Interstate 75 bridge overpasses State Route 63. All bridge components were observed to be concrete. Figure – 1 shows the general location of the bridge.

2.0 INSPECTION

The identification of asbestos containing materials (ACM) is performed by collecting bulk samples of suspect materials and having those samples analyzed by a laboratory. Asbestos-containing materials (ACM) are those materials found to contain greater than one percent asbestos by calibrated visual area estimation (CVAE) by Polarized Light Microscopy (PLM).

Bulk sampling is a procedure in which representative homogeneous sampling areas in a structure are identified and then sampled. A homogeneous sampling area is defined as an area that contains material of the same type (uniform in color and texture) and is applied during the same general time period. Once the homogeneous sampling areas are identified, bulk samples of suspect materials are obtained at the discretion of our inspectors, based on site conditions and past experience.

2.1 PERSONNEL AND DATE(S) OF INSPECTION

The sampling and field activities were performed on May 30 and June 17, 2014 by Joel Russell and James Jackson, Accredited State of Tennessee Asbestos Inspectors. A copy of Mr. Russell and Mr. Jackson's current accreditation from the State of Tennessee is included in Appendix A.

2.2 VISUAL SURVEY

Terracon's survey began with a walk-through and visual survey of the structures located on the property. The visual survey consisted of:

- sketching the structure and/or verifying the plans provided

- locating and identifying homogeneous areas of suspect materials that may contain asbestos minerals
- determining applicable sampling locations

2.3 ACCESS TO BRIDGE COMPONENTS

Individual bridge components were accessed by the following methods:

2.3.1 Top of Bridge Deck

The top of the concrete bridge deck was accessed and sampled along the shoulders and at abutment corners. TDOT traffic control was not deemed necessary as sample collection and visual assessment was achieved from the shoulder along the side rails. Furthermore, Terracon used signage and cones to delineate the work zone.

2.3.2 Underside of Bridge Deck/Beams

The underside of the concrete bridge deck and concrete beams were accessed and sampled from the ground surface. No drainage pipes were observed on the underside of the deck. TDOT traffic control was not deemed necessary as sample collection and visual assessment was achieved beneath the bridge. Furthermore, Terracon used signage and cones to delineate the work zone.

2.3.3 Bridge Piers/Bents and Supports

The concrete supports were accessed and sampled from an extension ladder and the ground surface. TDOT traffic control was not deemed necessary as visual assessment and sampling was achieved beneath the bridge. Furthermore, Terracon used signage and cones to delineate the work zone.

2.3.4 Side Rails

The concrete side rails were accessed and sampled from shoulders and abutment corners. TDOT traffic control was not deemed necessary as visual assessment and sample collection was achieved from the shoulders at the abutment corners. Furthermore, Terracon used signage and cones to delineate the work zone.

2.3.5 Abutments

The concrete abutments were accessed and sampled from beneath the bridge. TDOT traffic control was not deemed necessary as sample collection and visual assessment was achieved beneath the bridge. Furthermore, Terracon used signage and cones to delineate the work zone.

3.0 ANALYTICAL PROCEDURES

3.1 ASBESTOS ANALYSIS PROCEDURES

The bulk samples are analyzed in the laboratory using Polarized Light Microscopy (PLM) coupled with dispersion staining. PLM is an analytical method for asbestos identification, which identifies the specific asbestos minerals by their unique optical properties. The optical properties are a result of the mineral's chemical composition, physical atomic structure, and visual morphology. This is the U.S. Environmental Protection Agency (EPA) recommended method of analysis for asbestos identification in bulk samples.

In most instances samples from each homogeneous area are analyzed on a “first positive stop” basis. “First positive stop” means that if one sample from a homogeneous area of material is found to contain greater than one percent asbestos, the remaining samples from that homogeneous area are not analyzed and the material is assumed to contain asbestos. In addition, samples which contain multiple layers, or that have associated mastic or adhesive backing, are analyzed as two or more separate samples. Samples that are identified to contain 1% or less asbestos minerals have been point counted by the laboratory for confirmation.

3.2 LABORATORY NAME AND ACCREDITATION

The bulk samples collected for this inspection were analyzed by a laboratory that has received accreditation from the National Institute of Standards and Technology (NIST) under the National Voluntary Laboratory Accreditation Program (NVLAP). The name and accreditation number of the analytical laboratory that analyzed the samples for this inspection is indicated in Table - 1:

Table – 1: Analytical Laboratory

Laboratory	Steve Moody Micro Services, LLC
NVLAP Number	102056

4.0 REGULATORY OVERVIEW

4.1 NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS

The EPA's National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations (40 CFR 61, Subpart B) requires that all regulated asbestos-containing materials (RACM) be properly removed prior to any renovation or demolition activities that will disturb them. These regulations define RACM as:

- Friable ACM.
- Category I non-friable ACM that has become friable.
- Category I non-friable ACM that will be or has been subject to sanding, grinding, cutting, or abrading.
- Category II non-friable ACM that has a high probability of becoming, or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

The NESHAP regulations also establish specific notification and control requirements for renovation and demolition work.

4.1.1 Definitions

Significant definitions related to regulation of asbestos under NESHAPS include:

Friable asbestos-containing material (ACM), is defined by the NESHAP, as any material containing more than one percent (1%) asbestos as determined using the method specified in Appendix A, Subpart F, 40 CFR Part 763, Section 1, Polarized Light Microscopy (PLM), that, when dry, can be crumbled, pulverized or reduced to powder by hand pressure. (Sec. 61.141)

Non-friable ACM is any material containing more than one percent (1%) asbestos as determined using the method specified in Appendix A, Subpart F, 40 CFR Part 763, Section 1, Polarized Light Microscopy (PLM), that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. EPA also defines two categories of non-friable ACM, Category I and Category II non-friable ACM, which are described as follows:

Category I non-friable ACM is any asbestos-containing packing, gasket, resilient floor covering or asphalt roofing product which contains more than one percent (1%) asbestos as determined using polarized light microscopy (PLM) according to the method specified in Appendix A, Subpart F, 40 CFR Part 763. (Sec. 61.141)

Category II non-friable ACM is any material, excluding Category I non-friable ACM, containing more than one percent (1%) asbestos as determined using polarized light microscopy according to the methods specified in Appendix A, Subpart F, 40 CFR Part 763 that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. (Sec. 61.141)

"Regulated Asbestos-Containing Material" (RACM) is (a) friable asbestos material, (b) Category I non-friable ACM that has become friable, (c) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or (d) Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

5.0 RESULTS

The results of the asbestos inspection are presented in the following sections.

5.1 RESULTS OF ASBESTOS BULK SAMPLE ANALYSIS

Thirty-one (31) samples were obtained from the bridge. Multiple samples of each homogeneous area were collected in accordance with State of Tennessee, Department of Transportation Environmental Division, Social and Cultural Resources Office, Hazardous Materials Section requirements and delivered to the laboratory for visual observation and microscopic analysis. The samples were selected based on homogeneous areas of suspect materials, as described in Section 2.2.

Table – 2 below, summarizes the various sampled materials which were found to contain greater than 1% asbestos minerals. Table – 3 summarizes the various sampled materials which were found to contain trace amounts of asbestos (<1% asbestos). Figure – 2 delineates the sample locations of asbestos containing materials on the property. Photographs of the different homogeneous areas sampled that were found to be asbestos-containing are presented in Appendix B and the analytical result of all the samples collected from the property along with the chain-of-custody records are included in Appendix C.

Table – 2: Materials Containing Greater than 1% Asbestos

Sample No.	HA/Material Description	Location (Bridge Component)	Approx Qty.	Friable (Y/N)	Type Asbestos and Content
07403-027	HA 06 – Texture (off-white)	Side rail barrier (barrier wall inside of original bridge side rail)	1,000 ft ² per side rail barrier totaling 2,000 ft ²	Y	3% Chrysotile - texture
07403-028*	HA 06 – Texture (off-white)	Side rail barrier (barrier wall inside of original bridge side rail)	1,000 ft ² per side rail barrier totaling 2,000 ft ²	Y	Not analyzed
07403-029*	HA 06 – Texture (off-white)	Side rail barrier (barrier wall inside of original bridge side rail)	1,000 ft ² per side rail barrier totaling 2,000 ft ²	Y	Not analyzed
07403-030*	HA 06 – Texture (off-white)	Side rail barrier (barrier wall inside of original bridge side rail)	1,000 ft ² per side rail barrier totaling 2,000 ft ²	Y	Not analyzed
07403-031*	HA 06 – Texture (off-white)	Side rail barrier (barrier wall inside of original bridge side rail)	1,000 ft ² per side rail barrier totaling 2,000 ft ²	Y	Not analyzed

* Sample not analyzed. Assumed to be asbestos-containing using "First Positive Stop" method.
HA Homogeneous Area

Table – 3: Materials Containing Trace (<1% Asbestos)

No trace asbestos-containing materials were identified
--

6.0 QUALIFICATIONS

The information presented herein is based on information obtained during the site visits and from previous experience. If additional information becomes available which might impact our conclusions or recommendations, Terracon requests the opportunity to review the information, reassess the potential concerns, and modify opinions, if warranted.

This report has been prepared on behalf of the Tennessee Department of Transportation. This document is not a Bid Document or a Contract Document. Use of this report or reliance upon information contained in this report by any other party implies an agreement by that party to the same terms and conditions under which service was provided. Furthermore, any party, other than our Client, relying on this document is cautioned that all conclusions made or decisions arrived at based on their review of this document are those solely of the third party, without warranty, guarantee or promise by the author. These findings are relevant to the dates of our services and should not be relied upon to represent conditions at substantially earlier or later dates.

Figure – 1: Site Vicinity Map

07-I0075-11.24L
07I00750018
3 SPAN CONT. CDG
I-75 OVER SR 63
UP# SR063-06.52

Figure – 2: Site Sketch/Plan(s) with Sampling Locations



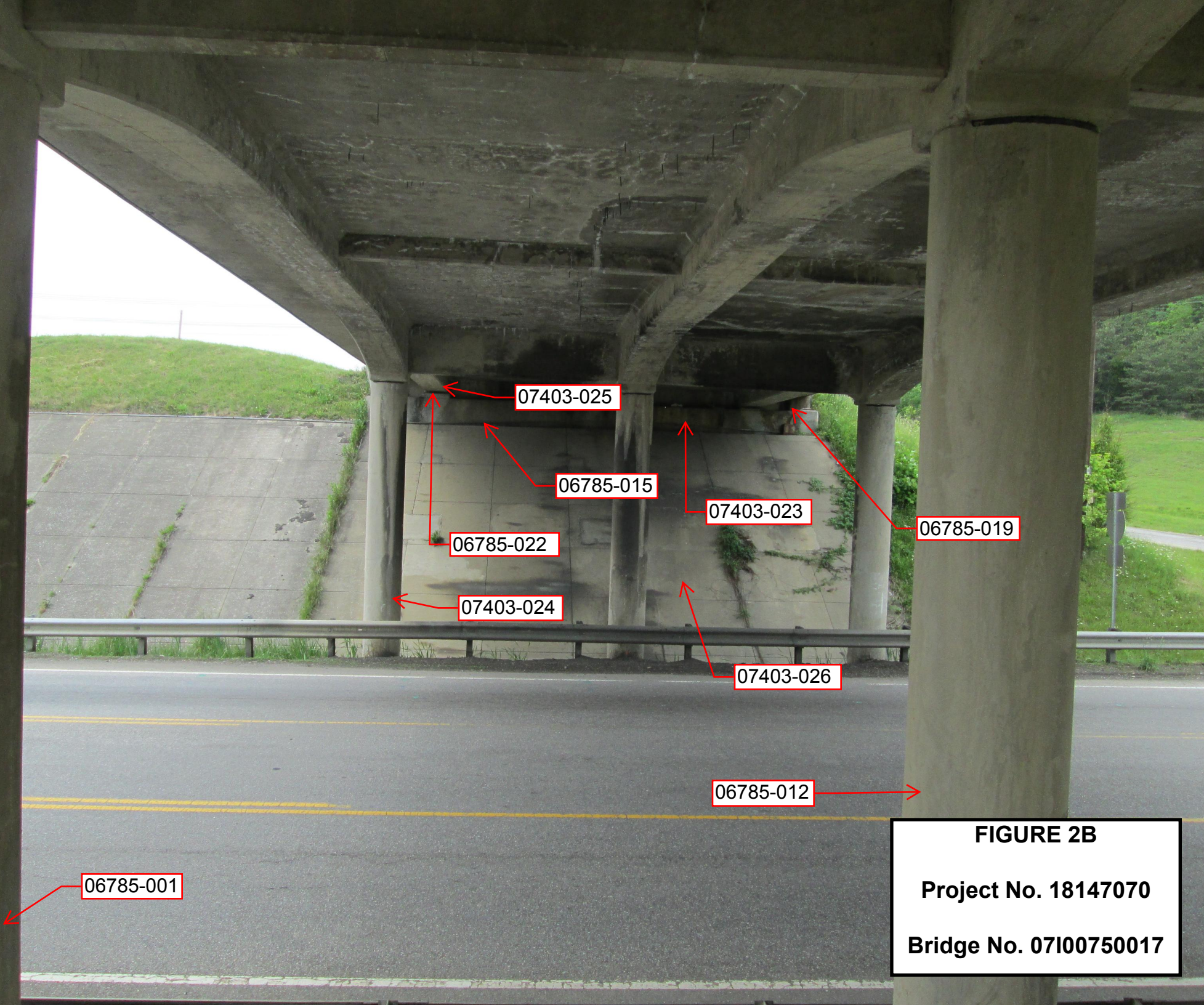
06785-018

07403-029 Asbestos
Containing Texture

FIGURE 2A

Project No. 18147070

Bridge No. 07I00750017



06785-001

07403-025

06785-015

07403-023

06785-019

06785-022

07403-024

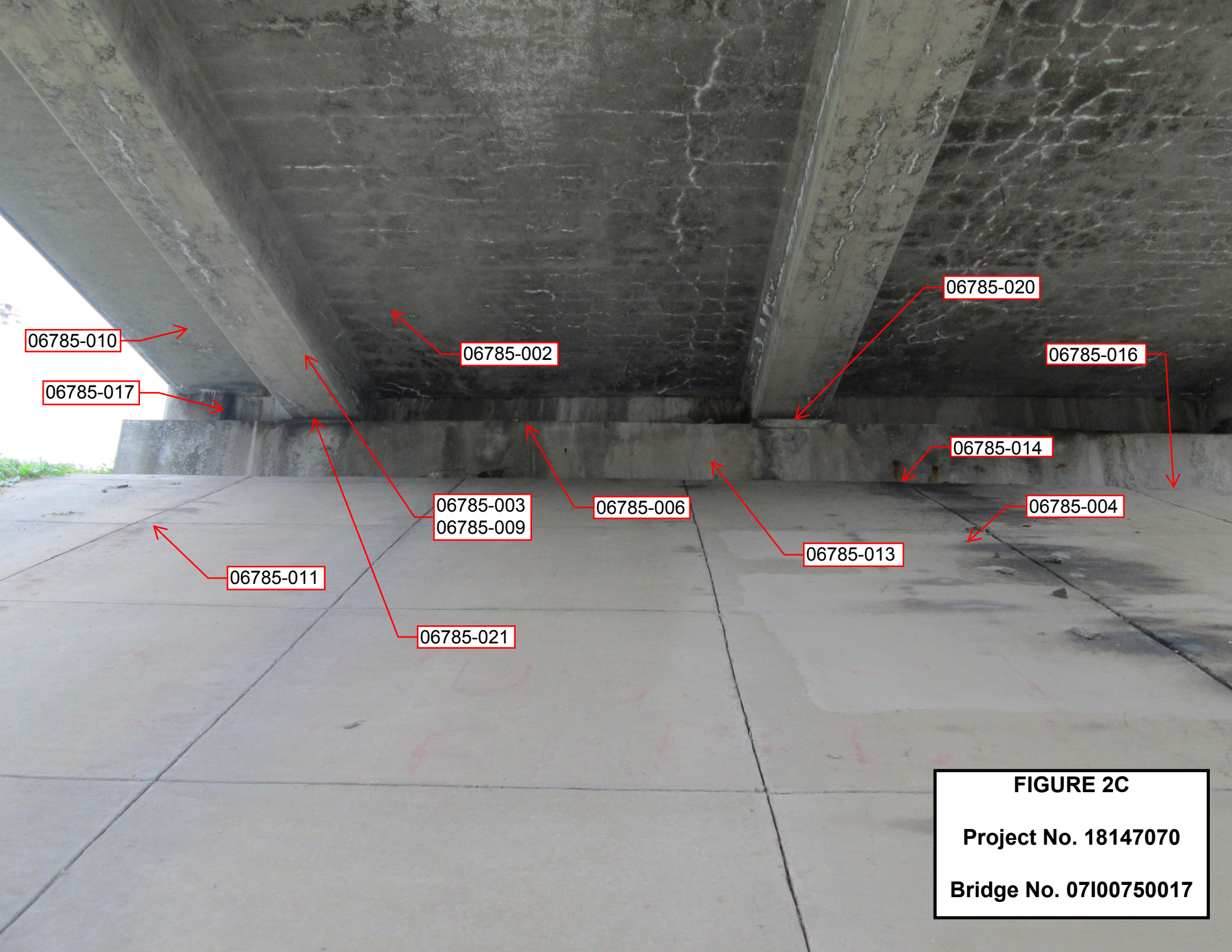
07403-026

06785-012

FIGURE 2B

Project No. 18147070

Bridge No. 07I00750017



06785-010

06785-017

06785-002

06785-003
06785-009

06785-011

06785-021

06785-006

06785-013

06785-020

06785-016

06785-014

06785-004

FIGURE 2C

Project No. 18147070

Bridge No. 07I00750017




06785-005

07403-027 Asbestos
Containing Texture

FIGURE 2D

Project No. 18147070

Bridge No. 07I00750017



07403-031 Asbestos
Containing Texture

07403-028 Asbestos
Containing Texture

FIGURE 2E

Project No. 18147070

Bridge No. 07I00750017



07403-030 Asbestos
Containing Texture

06785-007

06785-008

FIGURE 2F

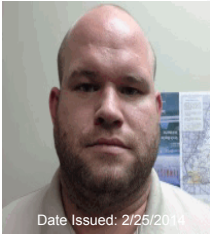
Project No. 18147070

Bridge No. 07I00750017

APPENDIX A: ASBESTOS INSPECTION PERSONNEL ACCREDITATIONS

THE STATE OF TENNESSEE

55182-20967



Re-Accreditation

Department of Environment and Conservation
Division of Solid Waste Management
Toxic Substances Program

Joel T. Russell

DOB	Sex	HGT	WGT
14-Dec-1983	M	6' 1"	285

Discipline	Accreditation	Expiration
Inspector	A-I-48757-32745	Dec-31-2014

Date Issued: 2/25/2014

Asbestos Accreditation

THE STATE OF TENNESSEE

Department of Environment and Conservation
Division of Solid Waste Management
Toxic Substances Program



James A. Jackson

DOB 17-Mar-1978 Sex M HGT 5' 7" WGT 150

Discipline	Accreditation	Expiration
Inspector	A-I-48751-32742	Dec-31-2014
Management Planner	A-MP-48751-32743	Dec-31-2014
Project Monitor	A-PM-48751-34811	Apr-30-2015

Date issued: 4/17/2014

Re-Accreditation

Asbestos Accreditation



THE STATE OF TENNESSEE

Department of Environment and Conservation Division of Solid Waste Management
Toxic Substances Program

William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 14th Floor Nashville TN 37243

By virtue of the authority vested by the Division of Solid Waste Management, the
Company named below is hereby accredited to offer and/or conduct Asbestos activities
pursuant to Rule 1200-01-20:

Terracon Consultants, Inc.

5217 Linbar Dr. Suite 309 Nashville TN, 37211

to conduct ASBESTOS ACTIVITIES in schools or public and commercial buildings in
Tennessee. This firm is responsible for compliance with the applicable requirements of Rule
1200-01-20.

Discipline	Type	Accreditation Number	Effective Date	Expiration Date
Accreditation	Re-Accreditation	A-F-692-32280	December 01, 2013	December 31, 2014



Given under the Seal of the State of Tennessee in Nashville.

This 3rd Day of February 2014

Division of Solid Waste Management
Toxic Substance Program

APPENDIX B: PHOTOGRAPHS

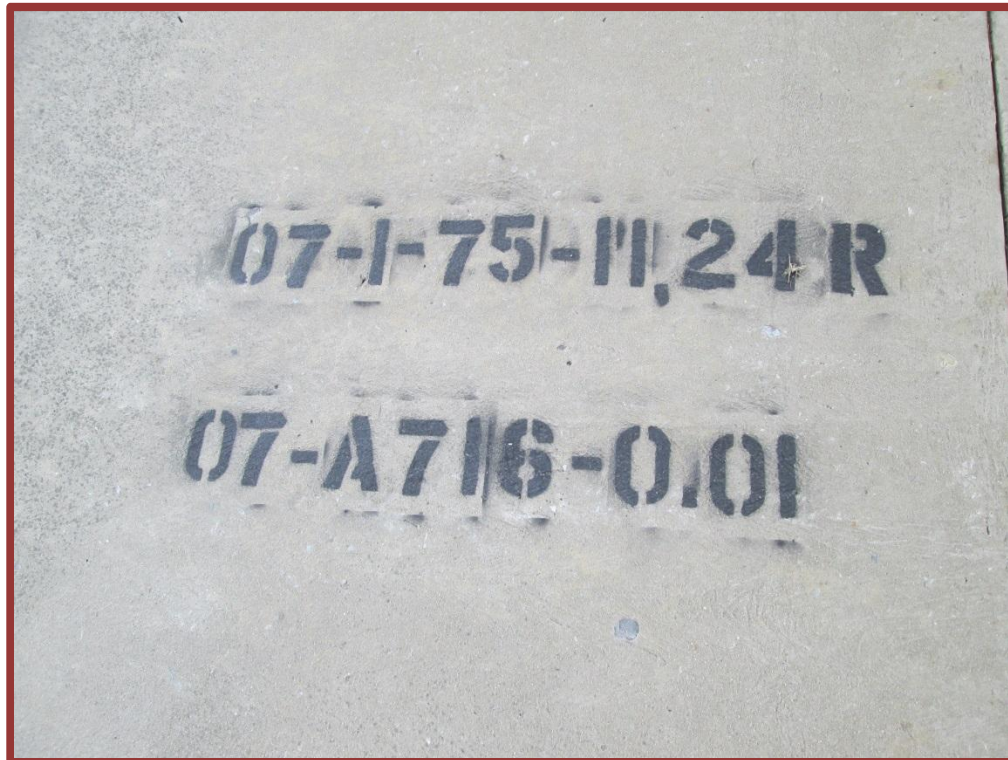


Photo 1: View of the bridge location number.



Photo 2: View of asbestos containing texture located on the concrete side rail barrier

APPENDIX C: ASBESTOS SAMPLE LABORATORY ANALYSIS DATA

PLM Summary Report

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : Terracon - Nashville, TN

Lab Job No. : 14B-06785

Project : TDOT Bridge, I-75 over SR-63, North Bound, 07I00750017

Report Date : 06/06/2014

Project # : 18147070

Sample Date : 05/30/2014

Identification : Asbestos, Bulk Sample Analysis

Test Method : Polarized Light Microscopy / Dispersion Staining (PLM/DS)
EPA Method 600 / R-93 / 116

Page 1 of 2

On 6/4/2014, twenty two (22) bulk material samples were submitted by James Jackson of Terracon - Nashville, TN for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

Sample Number	Client Sample Description / Location	Asbestos Content
001	HA01, Concrete (Gray), Column	None Detected - Concrete
002	HA01, Concrete (Gray), Deck	None Detected - Concrete
003	HA01, Concrete (Gray), Support	None Detected - Concrete
004	HA01, Concrete (Gray), Abutment Slope	None Detected - Concrete
005	HA01, Concrete (Gray), Sidewall	None Detected - Concrete
006	HA01, Concrete (Gray), Abutment	None Detected - Concrete
007	HA02, Texture (Gray), Side Rail	None Detected - Texture
008	HA02, Texture (Gray), Side Rail	None Detected - Texture
009	HA02, Texture (Gray), Support	None Detected - Texture
010	HA02, Texture (Gray), Deck	None Detected - Texture
011	HA02, Texture (Gray), Abutment Slope	None Detected - Texture
012	HA02, Texture (Gray), Column	None Detected - Texture
013	HA02, Texture (Gray), Abutment	None Detected - Texture
014	HA03, Pressboard (Brown and Black), Abutment and Support	None Detected - Pressboard
015	HA03, Pressboard (Brown and Black), Abutment and Support	None Detected - Pressboard
016	HA03, Pressboard (Brown and Black), Abutment and Support	None Detected - Pressboard
017	HA04, Vibration Pad (Asphalt, Black), Sidewall and Abutment Expansion Joint	None Detected - Vibration Pad
018	HA04, Vibration Pad (Asphalt, Black), Sidewall and Abutment Expansion Joint	None Detected - Vibration Pad

PLM Summary Report

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : Terracon - Nashville, TN

Lab Job No. : 14B-06785

Project : TDOT Bridge, I-75 over SR-63, North Bound, 07I00750017

Report Date : 06/06/2014

Project # : 18147070

Sample Date : 05/30/2014

Identification : Asbestos, Bulk Sample Analysis

Test Method : Polarized Light Microscopy / Dispersion Staining (PLM/DS)
EPA Method 600 / R-93 / 116

Page 2 of 2

On 6/4/2014, twenty two (22) bulk material samples were submitted by James Jackson of Terracon - Nashville, TN for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

Sample Number	Client Sample Description / Location	Asbestos Content
019	HA04, Vibration Pad (Asphalt, Black), Sidewall and Abutment Expansion Joint	None Detected - Vibration Pad
020	HA05, Rubber Pad (Black), at Support and Abutment	None Detected - Rubber Pad
021	HA05, Rubber Pad (Black), at Support and Abutment	None Detected - Rubber Pad
022	HA05, Rubber Pad (Black), at Support and Abutment	None Detected - Rubber Pad

These samples were analyzed by layers. Quantification, unless otherwise noted, is performed by calibrated visual estimate. The test report shall not be reproduced, except in full, without written approval of the laboratory. The results relate only to the items tested. These test results do not imply endorsement by NVLAP or any agency of the U.S. Government. Accredited by the National Voluntary Laboratory Accreditation Program for Bulk Asbestos Fiber Analysis under Lab Code 102056-0.



Analyst(s): Heather Lopez

Lab Manager : Heather Lopez

Lab Director : Bruce Crabb

Approved Signatory :

Approved Signatory :

Thank you for choosing Steve Moody Micro Services

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

PLM Detail Report
Supplement to PLM Summary Report

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : Terracon - Nashville, TN

Project : TDOT Bridge, I-75 over SR-63, North Bound, 07I00750017

Project # : 18147070

Lab Job No. : 14B-06785

Report Date : 06/06/2014

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Sample Number	Layer	% Of Sample	Components	% of Layer	Analysis Date	Analyst
001	Concrete (Grey)	100%	Aggregate Cement Binders	65% 35%	06/06	HL
002	Concrete (Grey)	100%	Aggregate Cement Binders	65% 35%	06/06	HL
003	Concrete (Grey)	100%	Cellulose Fibers Aggregate Cement Binders	<1% 65% 35%	06/06	HL
004	Concrete (Grey)	100%	Aggregate Cement Binders	65% 35%	06/06	HL
005	Concrete (Grey)	100%	Aggregate Cement Binders	65% 35%	06/06	HL
006	Concrete (Grey)	100%	Aggregate Cement Binders	65% 35%	06/06	HL
007	Texture (Grey)	100%	Aggregate Calcite / Binders	65% 35%	06/06	HL
008	Texture (Grey)	100%	Aggregate Calcite / Binders	65% 35%	06/06	HL
009	Texture (Grey)	100%	Aggregate Calcite / Binders	65% 35%	06/06	HL
010	Texture (Grey)	100%	Aggregate Calcite / Binders	65% 35%	06/06	HL
011	Texture (Grey)	100%	Aggregate Calcite / Binders	65% 35%	06/06	HL
012	Texture (Grey)	100%	Aggregate Calcite / Binders	65% 35%	06/06	HL
013	Texture (Grey)	100%	Aggregate Calcite / Binders	65% 35%	06/06	HL
014	Pressboard (Brown/Black)	100%	Cellulose Fibers Tar Binders	90% 10%	06/06	HL

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

PLM Detail Report
Supplement to PLM Summary Report

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client : Terracon - Nashville, TN

Project : TDOT Bridge, I-75 over SR-63, North Bound, 07I00750017

Project # : 18147070

Lab Job No. : 14B-06785

Report Date : 06/06/2014

Page 2 of 2

Sample Number	Layer	% Of Sample	Components	% of Layer	Analysis Date	Analyst
015	Pressboard (Brown/Black)	100%	Cellulose Fibers Tar Binders	90% 10%	06/06	HL
016	Pressboard (Brown/Black)	100%	Cellulose Fibers Tar Binders	90% 10%	06/06	HL
017	Vibration Pad (Black)	100%	Cellulose Fibers Calcite / Tar Binders	85% 15%	06/06	HL
018	Vibration Pad (Black)	100%	Cellulose Fibers Calcite / Tar Binders	85% 15%	06/06	HL
019	Vibration Pad (Black)	100%	Cellulose Fibers Calcite / Tar Binders	85% 15%	06/06	HL
020	Rubber Pad (Black)	100%	Rubber Binders	100%	06/06	HL
021	Rubber Pad (Black)	100%	Rubber Binders	100%	06/06	HL
022	Rubber Pad (Black)	100%	Rubber Binders	100%	06/06	HL



Asbestos Chain of Custody

Page 1 of 2

PLM-Bulk: ☐ 1 day ☐ 2 day ☒ 3 day ☐ 5 day ☐ Immediate ☐ 6 hr ☐ 12 hr ☐ 24 hr ☐ 5 day
☐ Immediate (Call for quote)
☐ ANALYZE ALL ☒ POSITIVE STOP
Please call in advance for after-hour & weekend analysis
TEM-Bulk/Wipe/MVac: ☐ 1 day ☐ 2 day ☐ 3 day
TEM-7402/Modified: ☐ 1 day ☒ 2 day ☐ 3 day

Company Name and City: Terracon - Nashville

Submitter's Name: James Jackson

Sample date: May 30, 2014

Project: TDOT Bridge - I-75 over SR-63, North Bound - 07100750017, Campbell County, Tennessee

Contact Information: Name: Rhett Sapp

E-mail Address: rsapp@terracon.com

Invoice Address: 5217 Linbar Drive, Suite 309, Nashville, Tennessee 37211

*** Please review paperwork and samples before submitting to lab. Uncontained / improperly packaged samples or excessive administrative requests may incur additional fees. ***

Notes:

Lab Job# 14B-060785 RM-22
Lab Job#
Lab Job#

No. of Samples: 22

P.O. No: -----

Project No: 18147070

Phone #: 615-333-6444

Mobile #: -----

Fax #: -----

Sample No.	Sample Description	Vol. / Area	Location / Notes
001	Concrete - gray	HA 01	Column
002	Concrete - gray	HA 01	Deck
003	Concrete - gray	HA 01	Support
004	Concrete - gray	HA 01	Abutment Slope
005	Concrete - gray	HA 01	Sidewall
006	Concrete - gray	HA 01	Abutment
007	Texture - gray	HA 02	Sidewall
008	Texture - gray	HA 02	Sidewall
009	Texture - gray	HA 02	Support
010	Texture - gray	HA 02	Deck
011	Texture - gray	HA 02	Abutment Slope
012	Texture - gray	HA 02	Column
013	Texture - gray	HA 02	Abutment
014	Pressboard - brown and black	HA 03	Abutment and Support
015	Pressboard - brown and black	HA 03	Abutment and Support

via FedEx

Released by: [Signature] Date/Time: 6/2/14 - 11:06AM
Received By: [Signature] Date/Time: 6-4-14 9:30AM
Released by: [Signature] Date/Time: [Blank] Date/Time: [Blank]



Asbestos Chain of Custody

Project: 07F00750017

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016	Pressboard - brown and black	HA 03	Abutment and Support
017	Vibration Pad - asphalt, black	HA 04	Sidewall and Abutment Expansion Joint
018	Vibration Pad - asphalt, black	HA 04	Sidewall and Abutment Expansion Joint
019	Vibration Pad - asphalt, black	HA 04	Sidewall and Abutment Expansion Joint
020	Rubber Pad - black	HA 05	@ Support and Abutment
021	Rubber Pad - black	HA 05	@ Support and Abutment
022	Rubber Pad - black	HA 05	@ Support and Abutment
023			
024			
025			
026			
027			
028			
029			
030			
031			
032			
033			
034			
035			
036			
037			
038			
039			
040			
041			
042			
043			
044			
045			
046			
047			
048			
049			
050			

PLM Summary Report

Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

NVLAP Lab Code 102056-0

TDSHS License No. 30-0084

Client :	Terracon - Nashville, TN	Lab Job No. : 14B-07403
Project :	TDOT Bridge I-75 over SR-63, North Bound 07I00750017	Report Date : 06/19/2014
Project # :	18147070	Sample Date : 06/17/2014
Identification :	Asbestos, Bulk Sample Analysis	
Test Method :	Polarized Light Microscopy / Dispersion Staining (PLM/DS) EPA Method 600 / R-93 / 116	

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On 6/18/2014, nine (9) bulk material samples were submitted by Joel Russell of Terracon - Nashville, TN for asbestos analysis by PLM/DS. The PLM Detail Report is attached; additional information may be found therein. The results are summarized below:

Sample Number	Client Sample Description / Location	Asbestos Content
023	HA02, Texture (Gray), Abutment	None Detected - Texture
024	HA02, Texture (Gray), Support	None Detected - Texture
025	HA02, Texture (Gray), Beam	None Detected - Texture
026	HA02, Texture (Gray), Sloped Abutment Wall	None Detected - Texture
027	HA06, Texture (Off-White), Siderail Barrier	3% Chrysotile - Texture
028	HA06, Texture (Off-White), Siderail Barrier	Not Analyzed - Positive Stop
029	HA06, Texture (Off-White), Siderail Barrier	Not Analyzed - Positive Stop
030	HA06, Texture (Off-White), Siderail Barrier	Not Analyzed - Positive Stop
031	HA06, Texture (Off-White), Siderail Barrier	Not Analyzed - Positive Stop

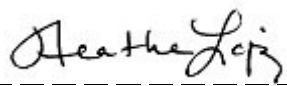
These samples were analyzed by layers. Quantification, unless otherwise noted, is performed by calibrated visual estimate. The test report shall not be reproduced, except in full, without written approval of the laboratory. The results relate only to the items tested. These test results do not imply endorsement by NVLAP or any agency of the U.S. Government. Accredited by the National Voluntary Laboratory Accreditation Program for Bulk Asbestos Fiber Analysis under Lab Code 102056-0.




Analyst(s): Bruce Crabb

Lab Manager : Heather Lopez

Lab Director : Bruce Crabb

Approved Signatory : 

Approved Signatory : 

Thank you for choosing Steve Moody Micro Services

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Steve Moody Micro Services, LLC

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

PLM Detail Report
Supplement to PLM Summary Report

NVLAP Lab Code 102056-0

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Sample Number	Layer	% Of Sample	Components	% of Layer	Analysis Date	Analyst
023	Texture (Grey)	100%	Aggregate Cement Binders	20% 80%	06/19	BC
024	Texture (Grey)	100%	Aggregate Calcite / Binders	20% 80%	06/19	BC
025	Texture (Grey)	100%	Aggregate Calcite / Binders	20% 80%	06/19	BC
026	Texture (Grey)	100%	Aggregate Calcite / Binders	20% 80%	06/19	BC
027	Texture (Off White)	100%	Chrysotile Calcite / Pigment / Binders	3% 97%	06/19	BC
028	Not Analyzed - Positive Stop	100%			06/19	BC
029	Not Analyzed - Positive Stop	100%			06/19	BC
030	Not Analyzed - Positive Stop	100%			06/19	BC
031	Not Analyzed - Positive Stop	100%			06/19	BC

Chain of Custody

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Lab Job # 14B-07403 PLM:9
 Lab Job # _____
 Lab Job # _____

Please call in advance for immediate, after-hour, & weekend pricing & availability.

Turnaround of Culture Samples subject to Culture Growth

ASBESTOS PLM

Bulk ☐ 1 day ☒ 2 day ☐ 3 day ☐ 5 day ☐ Immediate
☐ Analyze All ☒ Positive Stop

PCM Air (7400) ☐ 1 day ☐ 2 day ☐ 3 day ☐ 5 day ☐ Immediate

TOTAL DUST (0500/0600) ☐ 1 day ☐ 2 day

MOLD

Non-culture (Tape / Bulk / Air) ☐ 1 day ☐ 2 day ☐ Immediate
☐ Air Standard Profile ☐ Air Expanded Profile

Analyze Blanks ☐ Yes ☐ No

Culture (Swab / Bulk / Plate) ☐ 7-14 day

OTHER:

Billing Company / City: Terracon/Nashville

Submitter's Company: Terracon

Submitter's Name: Joel Russell

Project: TDOT Bridge I-75 over SR-63, North Bound - 07I00750017

Contact Information: Name: Joel Russell

E-mail Results to: rsapp@terracon.com & jtrussell@terracon.com

Invoice Address: 5217 Linbar Dr. #309, Nashville, TN 37211

ASBESTOS TEM

Air AHERA Method ☐ 6 hr ☐ 12hr ☐ 24 hr
 Air 7402 (Modified) ☐ 1 day ☐ 2 day ☐ 3 day
 Bulk/Wipe/Micro Vac ☐ 1 day ☐ 2 day ☐ 3 day
 Water ☐ 1 day ☐ 2 day ☐ 3 day

Analyze Blanks ☐ Yes ☐ No

BACTERIA

Heterotrophic Plate Count (HPC) ☐ 3 day
 HPC + Gram Stain ☐ 3 day ☐ 5 day
 HPC + 3 Gram Neg ID ☐ 6-8 day
 HPC + 5 Gram Neg ID ☐ 6-8 day
 Fecal Coliform (MPN) ☐ 3 day
 Total Coliform & E Coli (P/A) ☐ 2-3 day

of Samples: 9

Sample Date: 6/17/14

Project #: 18147070

Phone #: 615-333-6444

Mobile #: _____

Fax #: 615-333-6443

P.O. #: _____

— Please review paperwork and samples before submitting to lab. Unsealed / improperly packaged / damaged / expired samples or excessive administrative requests may incur additional fees—

* Notes: If positive gypsum board samples, analyze all and composite and point count positive samples.

Sample #	Sample Description	Vol. / Area if applicable	Location / Notes
023	Abutment Texture - gray	HA 02	Abutment
024	Support " "	"	Support
025	Beam " "	"	Beam
026	Sloped Abutment Wall " "	"	Sloped Abutment Wall
027	Texture - off-white	HA 06	Siderrail barrier
028	" "	"	"
029	" "	"	"
030	" "	"	"
031	" "	"	"

Released By: <u>Joel Russell</u>	Date / Time: <u>6/17/14 15:00</u>	Received By: <u>Chloe Orr</u>	Date / Time: <u>6-18-14 9:40am</u>
Released By: _____	Date / Time: _____	Received By: _____	Date / Time: _____